DERWENT-ACC-NO: 2001-229584

DERWENT-WEEK: 200124

TITLE: Semiconductor device manufacture involves forming indium gallium phosphide layer on gallium arsenide layer and **etching** indium gallium phosphide layer using hydrochloric acid **etching** liquid or its aqueous solution

PATENT-ASSIGNEE: NEC CORP[NIDE]

PRIORITY-DATA: 1999JP-0198228 (July 12, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2001023951 A	January 26, 2001	N/A	007	H01L 021/306

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
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INT-CL (IPC): C09K013/04, H01L021/306 , H01L021/308 , H01L033/00

ABSTRACTED-PUB-NO: JP2001023951A

BASIC-ABSTRACT:

NOVELTY - Indium-gallium phosphide (InGaP) **layer is formed on gallium-arsenide layer (GaAs)**. InGaP layer is **etched** using hydrochloric acid or its acid aqueous solution **etching** liquid. Indium gallium arsenic phosphide (**InGaAsP**) **layer is etched** using hydrochloric acid **etching** liquid which contains hydrogen peroxide oxidizing agent. **Etching** rate for InGaAs and InGaAsP layers is the same.

USE - The method is used for manufacturing semiconductor devices.

ADVANTAGE - Base resistance is made low, **etching** non-uniformity is eliminated, and n-**InGaAsP layer is etched** with high homologousness.

CHOSEN-DRAWING: Dwg.0/11

TITLE-TERMS: SEMICONDUCTOR DEVICE MANUFACTURE FORMING INDIUM GALLIUM PHOSPHIDE LAYER GALLIUM ARSENIDE LAYER **ETCH** INDIUM GALLIUM PHOSPHIDE LAYER HYDROCHLORIC ACID **ETCH** LIQUID AQUEOUS SOLUTION

DERWENT-CLASS: L03 U11

CPI-CODES: L04-C07C;

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